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A Comparison Between Children's Anxiety Management Program & Developing Understanding of Self & Others: Effects on Children's School Anxiety, Self-Disparagement & Defensiveness

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Bengt

1985

A COMPARISON BETWEEN CHILDREN'S ANXIETY MANAGEMENT PROGRAM
AND DEVELOPING UNDERSTANDING OF SELF AND OTHERS:
EFFECTS ON CHILDREN'S SCHOOL ANXIETY,
SELF-DISPARAGEMENT, AND DEFENSIVENESS

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This thesis is dedicated to my father, who had to trust - for a long time and from a faraway distance - that all the efforts and expenditures would one day be worth all the trouble.

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Children experience unavoidable stress and anxiety. Excessive stress, or distress, and anxiety may negatively effect children's emotional, mental, and physical functioning. Examples of distress reactions in children include fears, aggression, frustration, low self-esteem, apathy, low academic achievement, poor peer relationships, fatigue, and developmental delays. Prolonged reactions to distress in children could cause severe emotional, mental, and physical problems when children reach adulthood. It is important that children learn effective strategies to cope with distress and anxiety. There is a dearth of research data regarding children and coping skills training for dealing with stress and anxiety. Therefore, the Children's Anxiety Mangement Program (CAMP) was implemented with forty-eight fourth grade children. CAMP was also compared to the Developing Understanding of Self and Others (DUSO) program in order to examine the effectiveness of CAMP to reduce fourth grade children's school anxiety,

self-disparagement, and defensiveness. The CAMP children were taught methods to cope with stress and anxiety (e.g. relaxation training, problem-solving skills) by two regular classroom teachers. A consultant helped the DUSO children discuss their own concerns and worries as DUSO used no formal training. The consultant also taught the necessary CAMP skills to the teachers. The CAMP program allowed for outcome and process evaluations. The evaluations used teacher and student logbooks, discussions with teachers and students, and analysis of scores on an anxiety scale. The CAMP and DUSO children participated in their respective program during an eight-week period, approximately 75-90 minutes a week. The hypotheses stated that (a) the CAMP children should significantly lower their anxiety and (b) reduce their anxiety significantly more than the DUSO children. The outcome was measured on the Children's School Questionnaire (CSQ). The hypotheses were not supported as (a) there were no significant treatment effects $F(1, 48) = 1.87, p > .05$ and (b) as only the comparison group significantly reduced anxiety scores $F(1, 48) = 3.26, p < .05$ between pretest and posttest and pretest and follow-up. Also, there were significant differences of anxiety scores (CAMP and DUSO) between repeated measurements $F(2, 48) = 15.88, p < .001$; and there were significant reductions of anxiety in the teachers by measures condition $F(2, 48) = 7.88, p < .01$ for teacher (1) between pretest and posttest and pretest and follow-up. There was a significant increase of defensiveness levels

between pretest and follow-up on the measurement condition
 $\underline{F}(1, 48) = 3.88, \underline{p} < .05$ for all children (CAMP and DUSO).
There were no significant differences for the
self-disparagement factor on any of the measures.

CHAPTER I

Introduction

A corollary to our time and society is the apparent prevalence of stress and anxiety. Stress and anxiety are necessities of life and cannot be avoided (Barrow & Prosen, 1981; Highland, 1981; May, 1978; Selye, 1976). In fact, "Life without the challenges which induce stress responses would be no life at all" (Pelletier, 1977, p.3). The problem, however, is that there exists an excessive and deleterious amount of stress in the Western culture (Pelletier, 1977) and, consequently, the "20th century has been called the 'age of anxiety'" (Spielberger, 1976, p.3). As stress is so prevalent in society, both children and adults often experience stress and anxiety in their lives (Lazarus, 1966; Siemon, 1978). Cowen (1982) adds that "It is the very fabric of childhood that children will . . . experience stressful life events" (p.65), and others (Rhiner, 1983; Siemon, 1978) write that all children experience stress.

Stress can be a positive or a negative factor in children's lives (Fimian, 1982). For instance, eustress is the personal outcome of a child to meet a stressful event in a positive, adaptive manner; and distress is the personal outcome of handling a stressful event in an

unproductive, maladaptive manner (Schultz, 1980). Anxiety, on the other hand, could be a vague apprehension that something terrible is about to happen (Berger, 1982) and feelings of powerlessness and helplessness (May, 1977). Thus, both distress and anxiety can cause discomfort in children. Distress and anxiety are also related to each other in a time sequence (Crowley, 1981; May, 1977; Spielberger, 1976) as distress may cause anxiety in children (Blue & Blue, 1982; Siemon, 1978). Children's reactions to distress have been related to various emotional, mental, and physical disorders (Gersten, Langner, Eisenberg & Orzeck, 1974; Heizel, Ream, Ratz, Rappaport & Coddington, 1978; Lidz, 1983).

Incidents of fears, anxieties, depressions, aggression, low self-esteem, apathy, boredom, destructiveness (against self and others), low academic achievement, poor peer relationships, stomach ulcers, hypertension, asthma, tension headaches, fatigue, and delays in normal development (e.g. difficulties in reading, language, mathematics, etc.) have been related to distress (Barrow & Prosen, 1981; Boswell, 1982; President's Commission on Mental Health, 1978; Radozy & Heller, 1982; Richardson, Beall & Jessup, 1983; Rhiner, 1983). These childhood disorders are associated with serious social maladjustment and may become precursors to significant emotional, mental, and physical disorders in later, adult life (Cohn, 1982; President's Commission on Mental Health,

1978). Thus, children's reactions to distress are a serious issue, and distress could have immediate and lifelong negative consequences for children. In order to help children deal with distress, it is important to identify their sources of distress and anxiety. The school setting have been appraised as a major source of distress and anxiety in children (Balk, 1983; Schultz, 1980).

At school, children have to master an increasingly complex body of knowledge, adapt to the behavioral and interpersonal demands of the school (Cowen, Trost, Izzo, Lorion, Door & Isaacson, 1975) and develop self-discipline (Chandler, 1981). Also, certain school events such as the first day of school, receiving grades, reading aloud, being sent to the principal, and giving a class report are examples of distress and anxiety sources (Balk, 1983; Chandler, 1981). Thus, at school children often meet with discomfort such as distress and anxiety (Crowley, 1981).

Children's reactions to distress and anxiety can impair their emotional, mental, and physical functioning (President's Commission on Mental Health, 1978). Children could benefit from receiving help to deal with distress and anxiety in order to avoid debilitating distress and anxiety reactions. It is, therefore, important to acknowledge the inadequacy of the current mental health service delivery at school to help children.

Schools, in general, rely on too few mental health professionals and other personnel trained to meet the needs

of children (President's Commission on Mental Health, 1978). The lack of available school mental health services usually means that only those students with severe and profound problems - a tiny fraction of approximately two to three percent of the total school population (Irigon, Sarno, Sera & Westgard, 1981) - will receive help (Cowen, Trost, Izzo, Lorion, Dorr & Isaacson, 1975). In other words, many children having mental problems are left without services at school (Irigon et al., 1981). Therefore, it is important to search for new ways to improve such service, including research of primary prevention as a mean to improve mental health services to school aged children (Cohn, 1982; Iverson & Kolbe, 1983).

Primary prevention is defined as any act given to, or around, an individual (preferably at the earliest age possible) that helps prevent maladjustment in any form (Helfer, 1982). Primary prevention also attempts to strengthen individual's capacities to handle distress (Caplan, 1964), as well as eliminate causes of emotional problems and reduce the incidence of future emotional disorders (Apter, 1982; Goldston, 1977; Moller, 1982; Weiner, 1982). Consequently, "Properly applied prevention modalities save lives, improve the quality of life, and are cost-effective " (Fitch & Blue, 1982, p.37). In comparison to the traditional mental health services' ability to help children, primary prevention intervention in childhood should ameliorate problems with less effort, be more humane

by lessening the troubled child's suffering, and enhance psychological functioning (Allen, Chinsky, Larcen, Lochman & Selinger, 1976; Swetnam, Peterson & Clark, 1983). Thus, primary prevention delivery of mental health services could help improve the current, inadequate ability of school mental health services to assist children.

Children are a desired target group for primary prevention delivery of mental health services at school (Iverson & Kolbe, 1983). As children often meet with distress and anxiety at school (Schultz, 1980), they could benefit from learning methods of how to cope with distress and anxiety (Siemon, 1978). Coping refers to strategies for dealing with threat or the way in which young children meet demands and crises in their lives (Lazarus, 1966). It is "efforts to manage (i.e. master, tolerate, reduce, minimize) environmental and internal demands, and conflicts among them, which tax or exceed a person's resources" (Lazarus & Launier, 1978, p.311). In other words, coping is a process to gain mastery over one's internal and external environment (Lazarus, 1966). As all children employ coping behaviors at some time and to some degree (Lidz, 1983) and as coping strategies will continue to influence an individual's future life (Rabkin & Struening, 1976; Siemon, 1978), it is important that children learn effective coping behaviors (Schultz, 1980).

When children have learned adaptive coping behaviors, stress at school can become less distressful (Schultz,

1980). Thus, attainment of effective coping strategies in childhood will help to avoid maladjustment (e.g. emotional disturbance), and facilitate adjustment to problems of life (Chandler, 1981; Siemon, 1978) as well as achievement of a certain degree of happiness (Crowley, 1981). There exist several techniques which may be used for coping with distress and anxiety (Pelletier, 1977).

Coping skills procedures such as self-control desensitization (Goldfried, 1971), anxiety management training (Deffenbacher, Michaels, Michaels & Daley, 1980), rational restructuring (Goldfried, 1977), relaxation training (Goleman & Schwartz, 1976), and autogenic training (Pelletier, 1977) are techniques which give the individual generalizable skills to prevent or reduce distress. Such methods could successfully be taught to children (Banks, 1983; Johns & Johns, 1983; Pelletier, 1977).

Distress reducing techniques could be introduced to schools to help children experience and practice a harmonious integration between mind and body (Crowley, 1981; Pelletier, 1977). Also,

Presenting children experiences such as relaxation techniques does not cost money per se, and the children can not only learn that such practices have a direct physiologic response on the body, but would also be able to start learning how to harness those techniques for their own benefit as it regards health and dealing with stress (Banks, 1983, p.379).

Since most children attend school (Meyers, Parsons & Martin, 1979), the school setting deserves attention in relation to implementation of primary prevention services in the form of distress and anxiety management.

Schools may be the most important setting in which to develop primary prevention programs and promote management of distress and anxiety (Cowen et al., 1975; Fitch & Blue, 1982; Iverson & Kolbe, 1983; Phillips, 1977). Schools have potentially useful personnel such as school psychologists, teachers, aids, and others (Allen, Chinsky, Larcen, Lochman & Selinger, 1976). For example, teachers, by nature of their educational expertise, should be able to promote good health in children (Fitch & Blue, 1982). It has been estimated that 95 percent of all children in the United States attend elementary and secondary schools (Iverson & Kolbe, 1983) and school based primary prevention programming could, therefore, involve most children of our nation. Cowen (1982) states that "there is a natural symbiosis among primary prevention programming, young children, and the schools" (p.59).

The research literature shows a dearth of information regarding primary prevention and coping skills programs in schools (Allen et al., 1976; Hyson, 1983). The focus of this thesis will, therefore, be primary prevention intervention and a coping-skills program for children. The Children's Anxiety Management Program (CAMP) is a prevention program designed to help children in fourth

through sixth grade to establish skills in coping with stress and anxiety in their personal lives and academic settings (Pfohl, 1979).

As coping skills methods appear suitable for use in prevention programs, the focus of this thesis is to (a) implement the CAMP program; (b) to evaluate the effectiveness of the program in relation to the children's coping skills; and (c) to assess the program's effect on children's anxiety. CAMP is designed to enhance these factors which would increase the likelihood for success. Students in two regular fourth grade classes will be randomly divided into one of two groups: (a) the CAMP group or (b) the DUSO group.

The hypothesis is that the anxiety of the children will be reduced after the completion of the CAMP program and that the children will manifest coping skills which will help them to adapt or deal with problems in which stress and anxiety are involved. It is also hypothesized that the CAMP group will manifest greater reduction of anxiety scores on the Children's School Questionnaire (CSQ) at post-test and follow-up than the DUSO group.

Summary

Both children and adults have distress and anxiety in their lives (Johns & Johns, 1983; Pelletier, 1977). Distress and anxiety are often debilitating factors in the daily, overall functioning of most individuals (Fine, 1982; Richardson, Beall & Jessup, 1983). It is, therefore,

worthwhile to teach methods of how to cope with stress and anxiety in an effective manner (Schultz, 1980).

The most important target population appears to be children as it is important to secure and maintain health in early life (Moller, 1982; Swetnam, Peterson & Clark, 1983). Most children can be reached at school (Meyers, Martin & Parsons, 1979) and, thus, schools are a "natural" setting in which to implement prevention programs aimed to teach children how to cope with distress and anxiety (Iverson & Kolbe, 1983; Siemon, 1978). Moreover, research efforts with prevention methods using coping skills training for stress management in children have been rare (Hyson, 1983; Routh, Schroeder & Koocher, 1983; Rutter, 1983) and additional research is, therefore, needed.

The purpose of this thesis is to investigate how a prevention based program for teaching basic coping skills to fourth grade children can enhance their ability to deal with stress and anxiety.

CHAPTER II

Literature Review

It is virtually impossible to eliminate stress and anxiety in the lives of children (Siemon, 1978). However, children could learn methods to adaptively cope with distress and anxiety (Chandler, 1981) and, thereby, reduce their risks of experiencing emotional, mental, and physical disorders (Cohn, 1982; Lidz, 1983; President's Commission on Mental Health, 1978). Primary prevention is appraised as the most advantageous intervention method to help children deal with distress and anxiety (Helfer, 1982; Moller, 1982), and schools could successfully introduce primary prevention programs (Iverson & Kolbe, 1983; Phillips, 1977). Because children often experience distress and anxiety at school which could negatively effect their academic performance and general well-being, it is desirable to teach school age children prevention techniques for coping with distress and anxiety as prevention (Schultz, 1980).

The terms stress and anxiety are widely used in many different contexts (Hyson, 1983) and both terms "represent multifaceted constructs" (Crawford, 1982, p.42). Thus, it is important to discuss briefly the terms stress and anxiety so their respective meanings may be clearly understood, as these terms are used here.

Anxiety

Anxiety is a complex concept with various definitions (McReynolds, 1976). Anxiety is a highly uncomfortable emotion and it is a response to a subjective rather than an objective danger, in which individuals perceive a threat to their existence (May, 1977). Anxiety is psychological pain (Turner, 1981) and a blend of alertness, anticipation, curiosity and fear which leads to a search for new solutions and information (Tanner, 1976). Descriptions of anxiety also include uncomfortable feelings of dread, disaster (Berger, 1982); apprehension, tension (Kagan & Havemann, 1976; Vattano; 1978); and individuals' intensity of subjective feelings of nervousness and worry (Spielberger, 1976). In other words, anxiety is a multidimensional concept which includes fear as a key element with two or more emotions such as sadness, anger, shame, shyness, guilt, and interest (Buchler & Izard, 1980). Further, anxiety may affect somatic, affective, and cognitive functioning (Schultz, 1980) as well as overt behavioral reactions (Leffingwell, 1977).

Children's reactions to anxiety. Physiological anxiety reactions could take the form of flushing, sweating, dry mouth, shallow breathing, chest tightness, heart palpitations, pounding pulse, headache, feelings of weakness, intestinal distress, muscular tightness, tremors, startle reactions, uncoordination, and "freezing" or "going blank" (Cotler & Guerva, 1976). Anxiety in school children

could cause misbehavior and maladaptive behavior in the form of apathy, "hyperactivity", consistently being late for school, inability to finish assignments on time, and forgetting assigned tasks (Leffingwell, 1977).

Leffingwell (1977) wrote that an anxious student may show overt behavioral reactions such as assuming a fetal position as if suffering from cramps, wringing of hands, pulling or twisting of hair, and squirming or being unable to sit still which are often incorrectly labeled "hyperactivity". Other behavioral reactions could be shaking of hands, feet, and legs as if suffering from a palsy; developing pallor, rash, or other changes in the appearance of the skin; laughing at inappropriate times such as during announcement of a test; verbalizing protests in the form of rationalizations (e.g. "If we fail, it isn't our fault."); and using nonverbal protests such as forgetting needed materials (Leffingwell, 1977). Also, the anxious student may withdraw emotionally as in a state of apathy when the real feeling is intense anxiety (Leffingwell, 1977).

Anxiety could also interfere with children's cognitive ability by changing customary thought patterns into negative thought patterns (e.g. "This is too difficult", "I can't do this".) (Averill, 1976; May 1977). Negative thought patterns make it difficult to concentrate and process and retrieve information (Barrow, 1982). When children's cognitive function is impaired, they could lose

the ability to predict or understand their physical and psychological environment (Blue & Blue, 1983). Research data indicated that anxiety can be linked to inability of students to profit from instruction (Tobias, 1979) and that grade point averages decrease as anxiety increases (Reynolds, 1978; Spielberger, 1962).

In summary, children's reactions to anxiety could lead to impairment of physiological, affective, cognitive (Schultz, 1980) as well as overt behavioral functions (Leffingwell, 1977). In children, high levels of anxiety have been linked to low academic achievement, and anxiety reactions, in general, are related to increased need for health care, lowered personal functioning and unhappiness (Petrich & Holmes, 1977; as cited in Berger, 1982).

Stress

Definitions of stress are as varied as those of anxiety and lack an agreed upon specific definition (Rutter, 1981). For example, stress has been described as a constraining force which may cause an individual to feel fatigued, strained, and distressed when trying to cope with this force (Cox, 1978) and an equilibrium state that exists between an individual responding to environmental demands and the actual environment (Fimian, 1982). Statements such as "the nonspecific response of the body to any demand made upon it" (Selye, 1976, p.1) and "the condition of increased wear and tear on the body resulting from demands placed upon a person which are difficult to cope with" (Schultz,

1980, p.12) are often used in the research literature. Distress, furthermore, is the result of unpleasant, damaging, and excessive stress (Schultz, 1980; Selye, 1974). Eustress, in contrast, is the personal outcome of meeting a stressful event in a positive, adaptive manner (Schultz, 1980; Selye, 1974). Children's reactions to distress could affect physiological, affective, motor behavioral, and cognitive factors (Lazarus, 1966).

Children's Reactions to Distress. Distress can decrease digestive activities and change perspiration levels (Barrow & Prosen, 1981). The autonomic nervous system and adrenal glands including secretion of various hormones which effect galvanic skin response, blood pressure, respiration, skin temperature, heart rate are influenced too (Lazarus, 1966). Motor behavioral reactions to distress are increased muscle tension, speech disturbance, particular facial expressions, and flight or attack (Lazarus, 1966). Thus, physiological reactions to distress include a complicated, interconnected set of muscular, neurological, hormonal, and chemical shifts in the body (Schafer, 1978).

Distress may also cause anxiety, anger, depression, fear, and guilt which are examples of disturbed affect (Lazarus, 1966; Schafer, 1978). Disturbance of memory processes, attentional capabilities (Hasher & Zacks, 1979), problem solving abilities, adequate judgments, and an adequate social adaption are incidents of a weakened

cognitive function due to distress (Lazarus, 1966).

Distress may also interfere with the body's levels of resistance and energy (Barrow & Prosen, 1981). When distress causes disruption of eating and sleeping habits, the child is often left fatigued and "run down" (Barrow & Prosen, 1981). It has also been documented that when the body is under distress it may be more able to deal with a single stressor while being less efficient to deal with a multitude of stressors (Selye, 1974). Thus, children's reactions to distress affect physiological, affective, behavioral, and cognitive functioning and these reactions may negatively interfere with children's academic performance and personal lives in general.

Anxiety is one of the reactions to distress (Ellman, 1981; Highland, 1981; Lazarus, 1966; Levitt, 1967; Phillips, 1978; Robinson, 1980; Schultz, 1980; Siemon, 1978; Vattano, 1978), and children, for instance, often react to school related distress with anxiety (Phillips, 1978; Schultz, 1980). Although distress and anxiety are related to each other (Crowley, 1981) and show similar components (e.g. physiological, social behavioral, and psychological phenomena), they differ in terms of subjectivity and objectivity (Hyde, 1980; May, 1977). Distress emphasizes what happens to an individual (objective) while anxiety is how the individual interprets or perceives (subjective) the distress (May, 1977).

The Relationship Between Distress and Anxiety

Distress refers to the objective properties of a situation (e.g. a real, dangerous physical threat such as an angry dog), whereas anxiety refers to an individual's perception of an objective stimulus as physically or psychologically dangerous (May, 1977). When individuals perceive a situation as threatening, anxiety will manifest itself regardless of the presence or absence of any real (objective) danger (Gaudry & Spielberger, 1971). To exemplify, individuals who are under a direct threat (e.g. fire in a room) will usually experience the "fight or flight" mechanism (e.g. heart rate and blood pressure will rise, digestive processes will shut off, and perception will become more acute in order to find an escape route). Such a situation causes the experience of distress (May, 1977). However, if the individuals could not find the means of escape, anxiety will manifest (e.g. perception becomes blurred and the individuals enter a state of paralysis, or panic) (May, 1977). In this state of anxiety, the individuals' distinction between object and subject have broken down (May, 1977) as their cognitive function have become impaired (e.g. the individuals have lost awareness of the time, the past, the future, and their existence) (Blue & Blue, 1982; Crowley, 1981; Fimian, 1982; May, 1977).

Thus, while distress can be objectified (e.g. appraised as a real, concrete object or situation which is physically or psychologically dangerous to an individual),

anxiety refers to a state of mind (Lazarus, 1966; May, 1977; Spielberger, 1976). Also, feelings of anxiety are proportionate to the amount of distress perceived (May, 1977). Anxiety could become more debilitating than distress as anxiety may be conceived as a state of cognitive disintegration (Averill, 1976; May, 1977).

Even though distress and anxiety have been conceptualized to be different from each other (e.g. objective versus subjective) (Hyde, 1980), they have also been conceptualized to be related to each other (Crowley, 1981; May, 1977). For example, both distress and anxiety show similar physiological, psychological, and social/behavioral manifestations (Fimian, 1982; Lazarus, 1966; McReynolds, 1976; as cited in Highland, 1981). Several researchers (Phillips, 1978; Sarason, Davidson, Lighthall, Waite & Ruebush, 1960) incorporate both adults and children in discussions of distress and anxiety.

Thus, anxiety in children has been mentioned to have (a) physiological (e.g. disturbed breathing, increased heart rate, vasomotor changes, increased trembling and sweating); (b) psychological/cognitive (e.g. feelings of helplessness, overstimulation, and low self-esteem; and (c) social/behavioral (e.g. poor social relationships, poor achievement, and lack of assertiveness) factors (Phillips, 1978; Sarason, Davidson, Lighthall, Waite & Ruebush, 1960; Wilson & Leary, 1975). Stress, like anxiety, has been conceptualized as having three similar components (e.g.

physiological, sociological, and psychological phenomena) (Fimian, 1982; Leffingwell, 1979; Monat & Lazarus, 1977; Vattano, 1978).

Children experience distress and anxiety at school and elsewhere in their personal lives (Schultz, 1980; Siemon, 1978). Even though most adults seem to believe that the world of elementary school children is safe and protected (Shapiro & Rulewisc, 1976), these children, in fact, often meet with discomfort such as distress and anxiety (Crowley, 1981). As children spend a considerable amount of their time at school, it is important to identify sources of distress and anxiety in this setting.

Children's School-Related Distress

Children in schools undergo processes of "immediate socialization" into the social system of the school and "anticipatory socialization" into the social system of the community (Glidewell, 1978). Children undergo socialization by becoming aware of various available behaviors and their consequences and choosing the most socially acceptable behaviors (Glidewell, 1978). Schooling is a special type of socialization which demands various forms of conformity such as adapting oneself to many new situations by one's own effort, approaching other people in a positive manner, applying oneself through self-modification for regular and intensive achievement, accepting being treated as belonging to a class or group and to a certain age-category, and being viewed on the

basis of a few characteristics, not on one's whole self (Glidewell, 1978). Situations which constrict individual expression of urges among students (e.g. a teacher demanding reading when a student wants to rest) often result in "intrapersonal tension" (e.g. daydreaming, frustration, anxiety, temper tantrums, crying) (Glidewell, 1978). "Interpersonal tension" (e.g. antisocial behavior, withdrawal from adults and other children, destructiveness against others and objects) is caused by restriction of spontaneous allocation of roles, resources, and rewards to students (Glidewell, 1978).

Phillips (1978) lists the following as distressful school events: Starting school, making new friends, failing a test, not being accepted into peer groups, and being sick. These events may be considered to be academically or socially related (Phillips, 1978). Academic distress could be unrealistic teacher expectations, a teacher going too fast, being compared to others in class, reading aloud, and test taking, whereas social distress could include fear of physical attack, style of clothing, unfriendly children, academic success and deficiencies (e.g. poor eye-hand coordination which impedes performance at games such as kickball, etc.) (Phillips, 1978).

Schultz (1980) divides school distress into physical and psychological distress. Physical distress refers to situations such as being exhausted, being too hot or cold,

receiving an injury, or other factors changing the body (Schultz, 1980). Psychological distress may be a real or imagined threat to a child's self-esteem, security, or safety, and it appears in a sequential format: (a) a school event is assigned meaning by a child internally (e.g. as a threat or something else), (b) the occurrence of the school event itself, and (c) the manifestation of internal and external responses to the school event which are dependent on the assigned meaning given to it (Schultz, 1980).

Research has shown that changes of life circumstances and experiences of certain life events can induce distress in children (Chandler, 1981; Yamamoto, 1979). For example, such situations might be being picked last for team membership, not making 100% on a test, moving to a new location, being ridiculed in class, getting lost, being sent to the principal, receiving a poor report card, and being retained in a class or grade (Yamamoto, 1979).

In normal development, children will encounter inescapable stress experiences such as the first day of school, giving a class report, and going to the dentist (Chandler, 1981). When children try to deal with pressure (e.g. starting school, making new friends, developing self-discipline, moving to a new location, etc.) they may also meet with failure and distress reactions such as frustration and anxiety (Chandler, 1981). These negative experiences may generate permanent feelings of inadequacy

and insecurity (Chandler, 1981). Thus, it appears that children could benefit from learning methods, or coping strategies, that will help them overcome their many challenges at school and life in general.

Coping

Coping is defined as the capacity to deal with the environment and its opportunities, challenges, frustrations, and threats, and maintenance of internal integration (Lazarus, 1966). This means an ability to manage one's relation to the environment so that an integrated functioning (e.g. absence of debilitating tenseness, unmanageable anxiety, loss of motor coordination, speech deterioration, and disorganization of thought processes) is maintained (Murphy & Moriarty, 1976). Coping with the environment could mean preparations to meet a harmful confrontation, or attacking an enemy (Lazarus, 1966). In other words, coping refers to the manner in which children adjust to environmental problems and their own internal demands (Chandler, 1981; Siemon, 1978; Zeitlin, 1980). Children may use a variety of coping-strategies which they often learn by solving problems of adjustment to their environmental and internal demands (Murphy & Moriarty, 1976; Zeitlin, 1980).

Coping style is the individual's habit of using certain strategies over others in order to manage the surrounding world (Zeitlin, 1980), and coping behaviors vary with the types of problems an individual face

(Pearlin, Menaghan, Lieberman & Mullan, 1981). The coping styles are developed individually by children from their various experiences and these strategies are specific behavioral challenges which are used to meet specific challenges, fears, and problems (Zeitlin, 1980). Rather than try to run away from a threat or a stressor children prefer to use strategies such as forestalling danger by knowing when to stop, strategic withdrawal, selecting and imposing their own structure, and restructuring the environment as needed (Murphy & Moriarity, 1976). In addition, children may try to reduce a threat, bypass it, run away from it, eliminate or destroy the threat or control the threat by setting limits (Pfohl, 1979). Instead of dealing with the threat itself, children may deal directly with the aroused anxiety itself. By being brave, using insight, reassuring themselves that they can deal with the threat, or by consciously formulating the nature of the threat, they may attempt to control the tension (Murphy, 1962).

Coping strategies have the function of altering situations that give rise to distressful problems; changing the meaning of problems which decrease their threat; and managing symptoms of distress (Pearlin, Menaghan, Lieberman & Mullan, 1981). Further, in order to help children become successful individuals, it is important to teach children to cope with distress and anxiety (Chandler, 1981; Crowley, 1981; Siemon, 1978).

The adaptive processes referred to as coping and which extends over time has recently received attention as key elements to understanding reactions to stress (Rutter, 1981). In fact, "the ways in which people cope with stress may be even more important to overall morale, social functioning, and health/illness than the frequency and severity of episodes of stress themselves" (Lazarus & Launier, 1978, p.308). Siemon (1978) writes that it is not the event itself that determines its stressfulness but the manner in which a child experiences that event. In addition, many children need help to unlearn inappropriate behaviors and re-educate life-coping strategies (Crowley, 1981).

Because children may deal inefficiently with distress and anxiety, it is desirable to teach children relaxation techniques which will help them to cope and react to events, situations, and persons in an effective manner (Crowley, 1981). Training children to use more effective coping skills techniques, such as relaxation training, in order to prevent and ameliorate ongoing distress and anxiety, is highly desirable (Barrios & Shigetomi, 1980).

Coping skills training with children. Coping skills training teaches an individual to identify signs of distress and anxiety and to self-initiate behaviors to reduce or eliminate tension (Barrios & Shigetomi, 1980). When relaxation techniques are used daily, they can prevent build-up of tension and decrease general levels of distress

(Hurley, 1980; Pelletier, 1977). Distress reduction techniques may also help children experience and practice a harmonious integration between mind and body (Crowley, 1981; Pelletier, 1977) and lead to a more effective general functioning (e.g. higher levels of performance, successful problem-solving, and a more satisfied living) (Crowley, 1981). Regular practice of relaxation techniques may also lead to the development of "coping-levers" such as deep breathing or concentration on a cue-word to instigate relaxation (Barrow & Prosen, 1981).

Coping skills training allows for presentation of stress management programs as prevention (Cowen, 1982). Adherence to mental health prevention methods (e.g. distress and anxiety management) will save individuals from unnecessary suffering and lessen the problematic situation of shortage of treatment services at school and in society (Gelfand & Hartmann, 1977; Iverson & Kolbe, 1983; Swetnam, Peterson & Clark, 1983). Also, children are emotionally and cognitively malleable and, therefore, amenable to primary prevention strategies such as relaxation training (Rappaport, 1977; Swetnam, Peterson & Clark, 1983).

In summary, coping skills training can teach children to reduce distress and anxiety in their lives. Coping skills training also provides coping skills for dealing with distress and anxiety which generalize beyond those specifically addressed in practice and it allows for presentation of distress and anxiety management as primary

prevention (Cowen, 1982). As children at school often experience distress and anxiety which may negatively effect their academic performance and general well-being at school, it is important that coping skills training be implemented in relation to the school environment (Schultz, 1980).

Characteristics of a coping skills program of distress. Schultz (1980) stated that stress management should be taught to children for both preventive and restorative purposes. A coping skills program which teaches a child to manage school related distress could focus on the following factors: (a) the child's uniqueness; (b) the child's need to learn flexible self-management skills; (c) the child's using a desensitization process at distressful areas in the school in order to gain competency; (d) the child's ability to experience success in handling distressful school events; (e) the child's awareness of the nature of distress and anxiety coupled with different coping techniques; (f) the child's learning of relaxation skills as a critical self-management skill; (g) the child's developing of plans which lead to more effective coping (e.g. teaching basic problem-solving); and (h) the child's practicing in a large number of situations in which management of distress is appropriate (Schultz, 1980). Because relaxation techniques are infrequently taught and practiced at school, it is important that health educators organize the school

curriculum to reflect this concern (Greenburg, 1977). In addition, the lack of implementation of distress and anxiety management at school could be related to the dearth of research data which could indicate the effectiveness of teaching coping skills training (Richardson, Beall & Jessup, 1983).

Need for additional research of coping skills training. Several reasons exist to indicate that more research is needed to clarify the effectiveness of children's coping skills as prevention. First, although coping skills training possesses a great potential for use in prevention, research in this area is basically non-existing (Barrios & Shigetomi, 1979). Second, most coping skills research has used adult populations; and the literature indicates a definite lack of research in reference to coping skills programs or broad-based behavioral programs for children (Hyson, 1983; Richardson, Beall & Jessup, 1983). Third, research with anxiety reducing techniques (e.g. relaxation training) is mainly based on laboratory experiments (Vattano, 1978). Although it is necessary to gather knowledge under controlled conditions, Vattano (1978) and Lazarus and Launier (1978) argued that research with stress, coping, and their implications should be examined in real-life settings. Fourth, the tripartite model of anxiety (e.g. psychological, physiological, and behavioral aspects) lacks research with children, and most contemporary studies have

used the psychodynamic model of anxiety (Phillips, 1978) (e.g. anxiety is a conscious danger signal in response to an external danger and unconscious contents and motivations) (Sarason, Davidson, Lighthall, Waite & Ruebush, 1960; Ruch, 1984). Fifth, there is a dearth of research regarding primary prevention in schools and empirical evaluation of such procedures (Allen, Chinsky, Larcen, Lochman & Selinger, 1976). In other words, there is a lack of research of coping skills training as prevention in school age children. Future research should, therefore, focus on coping skills training in child populations (Pfohl, 1979). A few studies exist, however, which have utilized training of coping skills to prevent reactions of anxiety in children.

One coping skills study examined the effects of coping strategies (systematic desensitization, cognitive rehearsal) upon public speaking anxiety of ninth grade females (Cradock, Cotler & Jason, 1978). Of the two coping strategy groups (systematic desensitization and cognitive rehearsal) and the control group (no intervention), only the cognitive rehearsal group showed effective decrease of susceptibility to public speaking anxiety (Cradock et al., 1978).

Another study of coping skills training (Siegel & Peterson, 1980) divided 42 children (mean age 4 years, 11 months), who were ready for their initial dental visit,

into one of three groups: sensory information, coping skills, or no treatment. The sensory information group received information of the basic procedures, typical physical sensations, and sights and sounds they could expect to meet with. The coping skills group were taught to use general body relaxation, deep and regular breathing, pairing of relaxing cue words (e.g. "calm" and "nice"), pleasant imagery, and calming self-talk (e.g. "everything is going to be fine"). The control group was read a chapter from Winnie the Pooh.

The results indicated that the sensory information and the coping skills groups displayed fewer disruptive responses, were less anxious and distressed, were more cooperative, and had lower post-treatment pulse rates than the control group. The difference between the intervention groups was shown by lower pulse rate in the coping skills group (Siegel & Peterson, 1980).

Kaufer, Newman and Karoly (1975) used verbal controlling responses involving coping strategies to control for 45 children's (age range 5 to 6) tolerance of darkness in a room. The children were assigned to one of three groups: (a) The competency group in which children were told to say "I am a brave boy/girl. I can take care of myself in the dark"; (b) the stimulus group which used statements such as "The dark is a fun place to be. There are many good things in the dark".; and (c) the neutral group which used words such as "Mary had a little lamb.

Its fleece was white as snow." Each child, in addition, listened to an elaborate statement (while in the experiment room) which was similar in content to the statements they were taught to recite. The analysis indicated that the competency group was superior to the stimulus and the control group in reference to variables of duration and intensity of the setting (the dark room).

Spirito, Finch, Smith and Cooley (1981) used stress inoculation training to control anxiety and anger in a 10 year-old boy. The method helped the boy to cope with stress he had experienced when given "difficult" academic assignments. His stress appeared as he feared being evaluated on his school performance by the teacher. The boy manifested a definite sequence of behaviors under stress: (a) Commenting about the difficult assignment; (b) starting to work with something else; (c) verbalizing protests such as "I'm getting mad"; (d) beginning to yell or curse at the teacher or other children; and (e) initiating an aggressive act, followed by crying.

The treatment followed a three-phase model: education, rehearsal, and application training. In the education phase, the experimenter talked with the boy about the function of anger and nature of anxiety and the boy was also given adaptive self-statements such as "My teacher won't think I'm dumb if I make a mistake". The rehearsal phase consisted of repetition of the adaptive self-statements and introduction of a series of study

skills statements such as "Read the directions carefully", "Stop, wait, and think". Also, the experimenter modeled simple relaxations skills for the boy such as taking a deep breath and then relax. The rehearsal phase was conducted so that the boy moved from overt, external guidance to covert self-instruction (e.g. performing silently). The final phase, application training, consisted of the teacher giving the boy school work while the experimenter purposely tried to evoke an angry reaction from the boy (e.g. "You can't get that one").

The results showed success during treatment and at follow-up, 6 months later. At follow-up the boy accepted classroom assignments 65 percent of the time compared to zero percent at base-line and 10.5 percent during treatment. At follow-up most of his grades had improved and were now mostly B's--a marked improvement. Also, the teacher had never had occasion to remove the boy from the classroom for behavior disturbances.

The authors argued that stress inoculation may be effective to manage stress and anxiety. However, the results in this study are only suggestive and additional research is needed, especially using group studies (Spirito et al., 1981). Thus, there exist a few studies which have researched the effectiveness of coping skills training as prevention. In order to utilize the full potential of coping skills prevention programs, it is important to consider the situations and places in which such programs

are most applicable.

Implementing Coping Skills Programs

It is important to successfully implement prevention programs (Barrios & Shigetomi, 1980). Behavioral procedures such as relaxation and behavioral rehearsal are easy for the individual to understand, they can be self-administered, or administered by a moderately trained person. Coping skills programs are simplistic in nature and will, therefore, suit the need for inexpensive prevention programs (Barris & Shigetomi, 1980). Also, administration of coping skills programs had successfully been delivered by nonprofessionals (Fremouw, 1975; Russell & Wise, 1976).

Summary

Children often experience unavoidable distress and anxiety in their lives (Siemon, 1978). Children's reactions to distress and anxiety may negatively effect their physiological, motor behavioral, and psychological functioning (Fimian, 1982, Vattano, 1978). When children's physiological, motor behavioral, and psychological functioning is disrupted, they could experience shallow breathing, heart palpitations, muscular tightness, shaking of hands and feet, speech disturbance, inability to sit still, anger, depression, guilt, and frustration. At school, children's distress and anxiety reactions could result in personal unhappiness and lowered academic performance (Schultz, 1980). In order to reduce children's

risks of experiencing debilitating distress and anxiety reactions, they could be taught methods to cope with distress and anxiety (Schultz, 1980; Siemon, 1978).

Techniques such as relaxation training, autogenic training (Pelletier, 1977), and rational restructuring (Goldfried, 1977) could help children cope with distress and anxiety. Relaxation training, for example, has been used with coping skills training in order to reduce or eliminate tension (Barrios & Shigetomi, 1980). Coping skills training teaches children awareness of mental and bodily reactions to distress and anxiety and to ameliorate or prevent discomforting symptoms. Over time, coping skills training could prevent children's build-up of tension (Hurley, 1980) and allow them to experience personal harmony and a heightened, positive level of general functioning (e.g. increased academic performance, more satisfied living) (Crowley, 1981). Further, coping skills training allows for presentation of anxiety management as prevention (Cowen, 1982).

Primary prevention is addressed as the most effective intervention method to teach children mastery over their distress and anxiety reactions (Moller, 1982). Primary prevention could also help solve the shortage of available mental health service delivery to school children (Iverson & Kolbe, 1983). In order to use a primary prevention program effectively, it is important to implement the program successfully.

Coping skills training is cost-effective and the techniques (e.g. relaxation training) are easy for children to understand and learn. Primary prevention coping skills training could be implemented in relation to the school environment (Schultz, 1980) as children often experience school-related distress and anxiety (Siemon, 1978).

CHAPTER III

Method

Subjects

The subject sample consisted of 48 students, 20 males and 28 females, enrolled in two intact fourth grade classes within the City School System of Bowling Green, Kentucky. The study assumed a pretest, posttest, and follow-up test comparison group design. The 48 subjects were randomly assigned to either the experimental or the comparison group. The subjects in the experimental group participated in the Children's Anxiety Management Program (CAMP); and the subjects in the comparison group participated in the Developing Understanding of Self and Others (DUSO) program.

Instructors

The CAMP program was administered by two regular fourth grade classroom teachers. Both teachers have taught for over 12 years at the elementary grade level. Their training and background show master degrees with about an additional 30 hours of graduate course work. They were both Rank I under Kentucky Certification Statutes.

The DUSO program was delivered by a consultant who was a graduate student in psychology at Western Kentucky University. The consultant had earned 57 hours of graduate credits in psychology and a B.A. in psychology. The

consultant lacked formal training as a classroom teacher or counselor but had experience with children as a tennis instructor.

Comparison of Treatments

There were two reasons for using the DUSO program with a comparison group. First, it was possible to compare between the CAMP and DUSO groups on various treatments (e.g. school anxiety, self-disparagement, and defensiveness) as DUSO is not specific to treatment of anxiety. Second, the DUSO program is similar to the CAMP program (e.g. both programs can be administered in similar locations, use equal time periods for each session and overall administration) although the DUSO program is not specific to stress and anxiety management, in contrast to the CAMP program. For instance, the CAMP program teaches directly usable skills to reduce stress and anxiety such as relaxation training, while the DUSO program only allows for discussions of general problems instead. Although it has been reported that only equivocal data exist to indicate that DUSO would be a successful intervention program (Phillips, 1978), other reports have indicated that DUSO could result in gain in overt behavioral, cognitive, and internal-emotional functioning (Baskin & Hess, 1980).

Description of Training Programs

Children's Anxiety Management Program (CAMP). The CAMP program consists of five interactive components: (a) introduction, (b) physiological, (c) cognitive/

psychological, (d) social/behavioral, and (e) generalization/follow-up. Each of the five components contain: (a) a specific rationale, consisting of statements of purpose to give instructors and students an overview of the main goals of that component; (b) goals, which are final skills (e.g. problem-solving skills); (c) subgoals, which are intermediate learning steps leading to a goal behavior (e.g. learning to generate solutions to problems as part of the process to master problem-solving); and (d) activities, which are the intermediate behaviors practiced to learn the goal behavior. The goals and subgoals are specific for each component with evaluation of the goal based on the attainment of the skill by the child. The teachers received copies of the CAMP program manual with its goals and procedures.

The responsibilities for the implementation of the CAMP program belonged to the consultant and the regular classroom teachers. It was the responsibility of the consultant to train these teachers in the needed skills of the CAMP program. The teachers, in turn, implemented the CAMP program autonomously.

Developing Understanding of Self and Others. There are eight major themes of the DUSO program: (a) Toward Self-Identity: Developing Self-Awareness and a Positive Self-Concept; (b) Toward Friendship: Understanding Peers; (c) Toward Responsible Interdependence: Understanding Growth from Self-Centeredness to Social Interest; (d)

Toward Self-Reliance: Understanding Personal Responsibility; (e) Toward Resourcefulness and Purposefulness: Understanding Personal Motivation; (f) Toward Competence: Understanding Accomplishment; (g) Toward Emotional Stability: Understanding Stress; and (h) Toward Responsible Choice Making: Understanding Values. Each of the themes utilize several activities such as listening to audiotaped dramatized stories, using posters, role playing, story writing, and supplementary activities to create interest and willingness on the part of the students to discuss openly among themselves about their concerns and worries. The children were guided by the consultant to discuss, for instance, the dramatized stories and posters and to share their own thinking, problems, concerns, interests, and experiences with the rest of the group. Therefore, the consultant functioned as a discussion leader, not as an instructor, and tried to create a non-evaluative, empathetic, open, and supportive atmosphere.

Each of the eight major themes comprised a unit by itself. Thus, the consultant was allowed to choose themes that were relevant to the needs, wants, and interests of the group (Dinkmeyer, 1973). Choosing specific themes was necessary as the complete DUSO program may last for an entire school-year. Besides, each unit of the DUSO program is divided into four or five cycles. Each cycle of activities contained a story and poster, problem situation,

role playing activity, puppet activity (not used in the study), discussion picture, career awareness activity, supplementary activities, and supplementary reading activities (not used in the study). Each cycle has enough activities to last a week.

Instrumentation

The Children's School Questionnaire (Phillips, 1978) was used to measure the effects of the CAMP and DUSO programs. The Children's School Questionnaire (CSQ) was given on three occasions: before, after the program, and at a 5 month follow-up.

There are 198 dichotomous (Yes or No) items on the CSQ scale. The items were selected from a number of scales such as the Test Anxiety Scale for Children (Phillips, 1978), the Audience Anxiety Scale (Phillips, 1978), the Achievement Anxiety Scale (Phillips, 1978), the Defensiveness Scale for Children (Phillips, 1978), and the Children's Personality Questionnaire (Phillips, 1978). The remainder of items were prepared by Phillips (1978).

The CSQ was standardized during the 1964-1965 and the 1965-1966 school years on "approximately" 600 children (Phillips, 1966, p.28). During the two years of testing, the numbers of available students, at any testing occasion, fluctuated due to absences, students entering and leaving the school system (Phillips, 1966). The testing procedures started when the students entered fourth grade and culminated when they left fifth grade. The children were

chosen from eight elementary schools in the Austin, Texas Independent School District (Phillips, 1966).

About one-fourth of the total number of subjects belonged to each of the major socio-cultural groups: Negro, predominantly lower class; Mexican-American, predominantly lower class; racially and ethnically mixed, predominantly Mexican-American and lower class; and racially and ethnically mixed, predominantly Anglo and middle class (Phillips, 1978).

Factor analysis of the CSQ scale revealed several factors: (a) School Anxiety, (b) Defensiveness, (c) Self-Disparagement in Relation to Others, (d) Sex-Linked Interests, Attitudes, (e) Feelings of Inferiority, (f) Neurotic Symptoms, Academic, (g) Neurotic Symptoms, Social, (h) Aggression with Independence Strivings, (i) Self-Enhancement through Derogation of Others, (j) Diffuse Hyperactivity, (k) Process toward Neuroticism, (l) Active Withdrawal, and (m) Emotional Disturbance with Depression. However, School Anxiety (SA), Defensiveness (DF), and Self-Disparagement in Relation to Others (SD) are the most significant factors on the CSQ scale (Phillips, 1966). In order to appraise the accuracy of the CSQ, it is important to examine its statistical properties such as internal reliability, stability, and validity measures of the three most prominent factors (SA, DF, and SD).

The internal reliability of the School Anxiety (SA), Defensiveness (DF), and Self-Disparagement (SD) factors

displayed homogeneity coefficients ranging from .95 to .96 (SA), .54 to .86 (DF), and .47 to .96 (SD). The stability of the factors showed test-retest coefficients ranging from .63 to .74 (SA), .28 to .54 (DF), and .16 to .23 (SD) (Phillips, 1966). Phillips (1966) wrote that although the stability of the School Anxiety factor was adequate, the low test-retest reliability of the Defensiveness and Self-Disparagement factors would indicate that scores on these factors (DF, SD) could vary across test situations. Furthermore, the validity of the CSQ scale was examined via correlational differences between school anxiety and general anxiety in relation to specific situations in the school setting (e.g. GPA, basal reading level, and test-taking). Phillips (1966) wrote that school anxiety should show higher correlational coefficients than general anxiety to specific school situations in order to conclude that CSQ is a valid instrument (i.e. that CSQ can distinguish between school anxiety and general anxiety).

The data analysis of the school anxiety factor yielded higher correlations in regard to basal reading levels (ranging from $r = -.27$ to $-.31$) than general anxiety (ranging from $r = -.09$ to $-.15$). The school anxiety factor displayed higher correlations to GPA (ranging from $r = -.20$ to $-.24$) than general anxiety (ranging from $r = -.11$ to $-.20$). There was a strong correlation between school anxiety and test anxiety ($r = .82$); a fact, which emphasized the validity of the CSQ

as school anxiety should be closely related to test anxiety (since test taking is a specific and regular activity in the schools) (Phillips, 1966). Moreover, the Defensiveness (DF) and Self-Disparagement (SD) factors have been appraised as different forms of anxiety (Atkinson & Feather, 1966; Phillips, 1966; Ruebush, 1963).

Defensiveness has been characterized as "unconscious" anxiety (Ruebush, 1963). Most often the response to unconscious anxiety is avoidance of threats and a denial of negative characteristics which an individual possesses. For example, children who are dominated to avoid school failure inhibit or avoid activities at school in which their need to avoid school failure are aroused (Phillips, 1966). If the children are forced to participate, they experience anxiety which is proportionate to the strength of the inhibition tendency they have to overcome (Phillips, 1966). Also, highly defensive persons experience anxiety only occasionally, and then only when they are in especially threatening circumstances and their defenses are inadequate or break down and expose them to conflicts or dangerous drives (Ruebush, 1963). Furthermore, self-disparagement is a form of anxiety which may manifest when individuals are being evaluated by others (Sarason, Davidson, Lighthall, Waite & Ruebush, 1960).

When children are observed by others (e.g. peers, teachers, parents), they may experience anxiety in the form of self-disparagement and react with strong "unconscious"

hostility to the evaluator (Sarason et al., 1960). The hostility may be expressed openly towards others (e.g. verbal protests) or turned inward against self in the form of self-derogatory attitudes (e.g., "I am not worth anything"; "I must be dumb").

Procedure

The study was conducted over a period of eight weeks. Permission to implement the CAMP and DUSO programs was obtained from the principal and the teachers. The rules of the school allowed for introduction of programs like CAMP and DUSO without prior permission from parents or students. Both teachers volunteered to participate in the study, a fact which facilitated cooperation between the consultant and the teachers. The CAMP manual stresses the need for volunteers as, otherwise, there could be a lack of interest and motivation by the teachers to correctly implement the CAMP program.

Overall, the teachers were trained in the CAMP activities in the following manner: One week prior to actual presentation of a new component - (a) introduction, (b) physiological, (c) cognitive/psychological, (d) social/behavioral, and (e) generalization/follow-up - to the CAMP group, the consultant met with the teachers for one to two hours and instructed them in the necessary skills. These meetings allowed the consultant to train and evaluate the teachers' mastery of the CAMP skills and ascertain that the skills followed the specifications of

the CAMP manual. Little discrepancy between the teachers' skill levels and those specified in the CAMP manual was evidenced. This fact established the implementation validity of the CAMP program as it was used in this study. The consultant was available, as needed, throughout the project and could be reached at any time during the school week. The consultant was also in charge of "catch up" sessions when students were absent from school as the CAMP group needed to master certain basic skills which depended on learning of earlier skills. The CAMP manual stresses the need of children to continue their practice after termination of the CAMP program itself. The teachers were, consequently, instructed to emphasize the importance of continual practice to the CAMP group.

The weekly routine for delivery of the CAMP and DUSO programs were as follows: both programs were administered simultaneously (in similar but separate classrooms across a hall, Monday through Thursday); that is, the CAMP and DUSO sessions started around 8:25 a.m. and finished around 8:50 a.m. (the average session lasted from 20-30 minutes). Before the children in the two fourth grade classes would divide themselves into their respective groups (CAMP and DUSO), the children and the classroom teachers met in their respective classrooms at 8:00 a.m. As soon as both teachers had finished routine tasks (roll call, collecting lunch-money, etc.) half the children from each classroom would exchange seats with each other as they belonged to

either the CAMP or DUSO group. When the children had seated themselves, the sessions would start (a closed classroom door signaled the CAMP session's start). As soon as the CAMP session was over, a child would notify the DUSO leader who, then, finished the DUSO session. It was the responsibility of the DUSO leader to start and finish the DUSO session simultaneously to the CAMP session. This arrangement posed no problems. Also, the teachers alternated days in which to lead or take notes of the CAMP sessions. The teacher who did not lead the CAMP group for the day observed the CAMP session and wrote about its progress in a logbook.

The consultant arrived 10 minutes before each session's start, at 8:15 a.m. Thus, the consultant and the teachers could hold short, informal meetings (2-3 minutes) for a quick rehearsal, "trouble shooting," or other problem-solving regarding the CAMP activities for the day. Immediate feedback regarding the outcome of the particular CAMP session could be given by the teachers to the consultant, or vice versa, when the children went back to their original classroom. Informal meetings (before and after sessions) were commonplace.

To evaluate the progress of the CAMP group, process and outcome evaluations were used. Process program evaluation techniques were used to determine if the CAMP program had been implemented as directed by the CAMP manual and to determine if the children learned the necessary

skills. Teacher discussions and reviewing of the children's and teachers' logbooks (both the teachers and the students used logbooks in which to record attainment of the goals of CAMP) to ensure that the CAMP program's goals were met as they were completed was part of the formative evaluation phase. Outcome evaluation consisted of examining CSQ data yielded by administration of CAMP and DUSO.

Data Analysis

The data were analyzed by $2 \times 2 \times 3$ repeated measures of ANOVAs for each of the three dependent variables: School Anxiety (SA), Self-Disparagement in Relation to Others (SD), and Defensiveness (SD). Treatment and teacher effects as well as interactions between treatment and repeated measures and teachers and repeated measures could be analyzed: the independent variables were (a) the CAMP and DUSO groups and (b) teacher (1) and teacher (2). All measurements were obtained at pretest, posttest, and follow-up.

CHAPTER IV

Results and Discussion

The School Anxiety Factor

Since CAMP is a coping skills prevention program of anxiety in school children, the study's most important investigation area was school anxiety. Levels of school anxiety were measured on the CSQ scale, before and after treatment, and at follow-up.

The school anxiety data were analyzed using a 2 (treatment versus control) x 2 (teacher 1 versus teacher 2) x 3 (pretest versus posttest versus follow-up) repeated measures analysis of variance (ANOVA). Table 1 shows the results of the analysis. The analysis yielded no significant differences for treatment $F(1, 48) = 1.87, p > .05$ and teacher $F(1, 48) = 0.55, p > .05$ conditions. On the other hand, there were significant differences between repeated measures

$F(2, 48) = 15.88, p < .001$ and for the interactions between treatment and measures $F(2, 48) = 3.26, p < .05$ and teachers and measures $F(2, 48) = 7.88; p < .01$. In order to locate the specific conditions under which the significant differences occurred, post-hoc analyses using the Newman-Keuls method were performed. The Newman-Keuls analysis for the treatment by repeated measures interaction

TABLE 1

Analysis of Variance--The School Anxiety Factor

Source	Df	SS	MS	F	P
Total	143	45324.89			
Between	47	34599.56			
Treatment	1	406.70	406.70	.55	NS
Teacher	1	1393.78	1393.78	1.87	NS
Treatment x Teacher	1	6.24	6.24	.01	NS
Error	44	32792.84	745.29		
Within	96	10725.33			
Measures	2	2387.10	1193.55	15.88	.001
Treatment x Measure	2	490.09	245.05	7.88	.01
Teacher x Measures	2	1184.59	592.30	3.26	.05
Teach x Trmt x Meas	2	49.89	24.95	.33	NS
Error	88	6613.66	75.16		

Note. Teach = Teacher; Trmt = Treatment; Meas = Measures

Table 2

Experimental and Comparison Group Means and Standard
Deviations at Pretest, Posttest, and Follow-up for the
School Anxiety Factor

		<u>Pre</u>	<u>Post</u>	<u>Follow-up</u>
Experimental:	Mean	31.79	30.21	23.38
	S.D.	16.10	16.33	16.64
Comparison:	Mean	32.38	21.92	16.64
	S.D.	17.32	18.06	18.29

Figure 1: Treatment by measures interaction effects on the school anxiety factor.

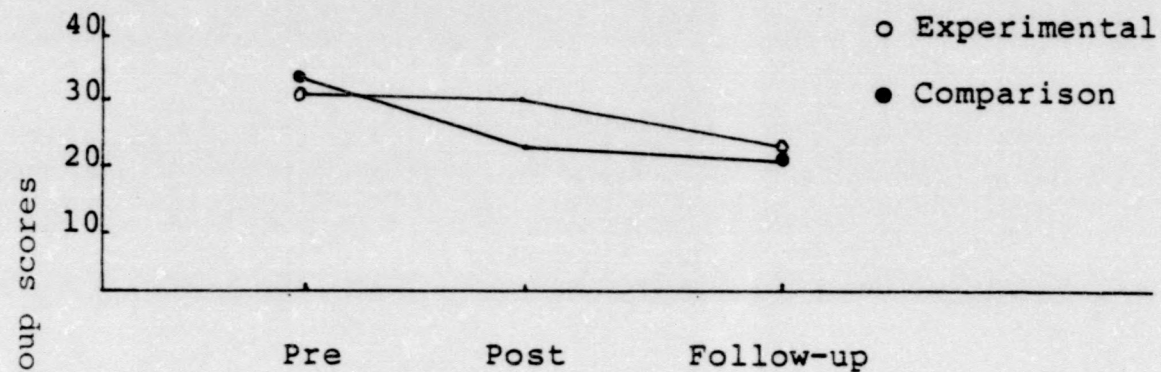
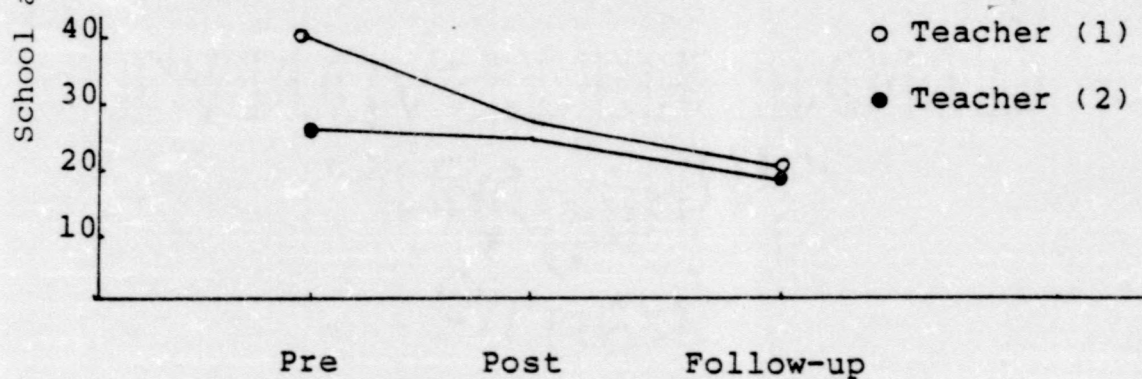


Figure 2: Teacher by measures interaction effects on the school anxiety factor.



displayed significant differences between pretest and posttest and pretest and follow up for the comparison group but no significant differences for the experimental group. Figure 1 shows the treatment by measures interaction effects for the school anxiety factor. Further, the analysis for the teachers by repeated measures interaction showed the following results: (a) there were significant differences between teacher (1) and teacher (2) at the time of pretesting; there were significant differences between pretest and posttest scores and between pretest and follow-up test scores yielded by subjects having teacher (1) for homeroom; and (c) there were no significant differences between any measures for teacher (2). Figure 2 displays the teacher by measures interaction effects for the school anxiety factor. The CSQ school anxiety means of the experimental (31.79) and the comparison (32.38) groups and the CSQ school anxiety standard deviations of the experimental (16.09) and the comparison (17.32) groups at pretest were comparable to one another. As the CSQ school anxiety group means and standard deviations were similar at the time of pretesting, the experimental and comparison groups were equal to each other in respect to levels of anxiety. The group means and standard deviations for all treatment measures can be found in Table 2.

The Defensiveness Factor

The defensiveness data were analyzed with the same 2 x 2 x 3 repeated measures design as the school anxiety

analysis used. Table 3 shows the results of the analysis. There were no significant differences for the conditions of treatment $F(1, 48) = 0.83, p > .05$ and teachers $F(1, 48) = 0.21, p > .05$. However, the repeated measures showed significant differences $F(2, 48) = 3.88, p < .05$. The Newman-Keuls test of post-hoc analyses showed significant differences of the repeated measures condition between scores at pretest and follow-up but scores between posttest and follow-up only approached significance. Figure 3 displays the significant differences for the defensiveness factor on the repeated measures conditions. There were no significant interactions between treatment and measures $F(2, 48) = 0.31, p > .05$ or teachers and measures $F(2, 48) = 0.43, p > .05$.

The Self-Disparagement in Relation to Others Factor

The data analysis for the self-disparagement factor used the same $2 \times 2 \times 3$ repeated measures design as the analysis of the school anxiety factor used. Table 4 shows the results of the analysis. The analyses of variance displayed no significant differences for the treatment $F(1, 48) = 2.14, p > .05$ or teacher $F(1, 48) = 2.75, p > .05$ conditions. There were no significant differences between repeated measures $F(2, 48) = 0.18, p > .05$; interactions between treatment and measures $F(2, 48) = 0.42, p > .05$, or teachers and measures $F(2, 48) = 0.38, p > .05$.

TABLE 3

Analysis of Variance--The Defensiveness Factor

Source	Df	SS	MS	F	P
Total	143	1468.33			
Between	47	718.33			
Treatment	1	3.68	3.68	.23	NS
Teacher	1	12.85	12.85	.81	NS
Treatment x Teacher	1	5.72	5.72	.36	NS
Error	44	696.08	15.82		
Within	96	750.00			
Measures	2	58.85	29.43		
Treatment x Measure	2	6.51	3.26	3.88	.05
Teacher x Measures	2	4.67	2.34	.43	NS
Teach x Trmt x Meas	2	12.31	6.16	.31	NS
Error	88	667.66	7.59	.81	NS

Note. Teach = Teacher; Trmt = Treatment; Meas = Measures

Figure 3: The measure effects on the Defensiveness factor for the combined experimental and comparison groups.

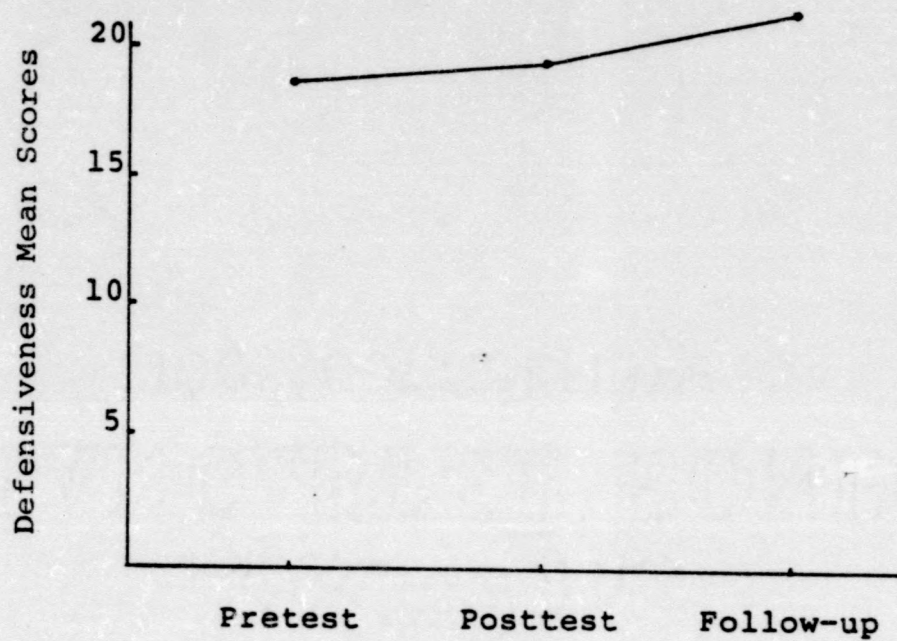


TABLE 4

Analysis of Variance--The Self-Disparagement Factor

Source	Df	SS	MS	F	P
Total	143	258.89			
Between	47	145.56			
Treatment	1	8.03	8.03	2.75	NS
Teacher	1	6.25	6.25	2.14	NS
Treatment x Teacher	1	2.77	2.77	.95	NS
Error	44	128.51	2.92		
Within	96	113.33			
Measures	2	.43	.22	.18	NS
Treatment x Measure	2	.93	.47	.38	NS
Teacher x Measures	2	1.04	.52	.42	NS
Teach x Trmt x Meas	2	.94	.47	.38	NS
Error	88	109.99	1.25		

Note. Teach = Teacher; Trmt = Treatment; Meas = Measures

Discussion

This study attempted to examine the effects of the CAMP program upon fourth grade children's school anxiety, self-disparagement, and defensiveness. The results showed significant reductions of children's anxiety between pretest and posttest, and pretest and follow-up for the DUSO group, but not for the CAMP group. Thus, the hypotheses that (a) the CAMP group would significantly decrease anxiety levels and (b) decrease these anxiety levels significantly more than the DUSO group were not supported.

The posttest scores were obtained during mid-December before Christmas vacation. As elementary school children's anxiety levels usually are elevated towards the end of the semesters (Phillips, 1978), the effectiveness of the DUSO program to reduce anxiety is emphasized further. Also, the children did not take part in any program other than CAMP or DUSO which could have reduced their levels of anxiety and, thereby, influenced the results of the study. In order to explain the unexpected outcome of the experimental group, it is important to consider the short eight-week period of the study in relation to the objectives of the CAMP and DUSO programs.

The CAMP program teaches directly usable skills for coping with anxiety. For instance, the CAMP children were asked to practice relaxation in combination with imagery, problem-solving, and social-behavioral skill techniques at

school as well as home. It is possible that eight weeks is not enough time to allow fourth grade children full mastery of the anxiety reducing techniques. It should be noted that the CAMP program was designed to be administered for a full school-year (Pfohl, 1979). In other words, the CAMP children could have been relatively unprepared to display reductions of anxiety at the time of posttesting. In addition, when the follow-up test scores are considered, it must be noted that these scores should have reflected the children's own continued practice. However, the study used no reliable measure to control for their adherence to autonomous practice once the actual CAMP program was terminated. Thus, the follow-up test scores should be considered tentative. In contrast to CAMP, the DUSO program attends to children's anxiety indirectly.

Since research has indicated that DUSO can affect internal-emotional functioning (Baskin & Hess, 1980), it could be assumed that children's sharing of personal concerns and worries among themselves might reduce anxiety. The question arises, however, whether the indirect approaches (e.g. discussions of anxiety) of the DUSO program to deal with anxiety would be as effective as the direct approaches (e.g. teaching relaxation methods) of the CAMP program when practiced over time. Except for initial reductions of anxiety for the DUSO group between pretest and posttest, there were no further reductions of anxiety (i.e. between posttest and follow-up). Thus, it is

possible that DUSO could lack significant long-term effects. Besides, the performance of the CAMP and DUSO leaders could have varied. Due to practical concerns (e.g. teachers, consultants, time, and space available), it was not possible to control for differences between the CAMP and DUSO leaders.

The teachers were not familiar with the CAMP program or other stress and anxiety management programs. Thus, they had to learn a complete, extensive anxiety management program (CAMP) for the first time. The teachers also spent much time with the study: CAMP was administered four days a week during an eight week period and the in-service training was implemented after the regular school day was over. The teachers also had to implement CAMP in the classroom without direct help from the consultant. The restrictions of this study's research design could not allow the consultant to help the teachers in the classroom (the CAMP and DUSO sessions were conducted simultaneously in separate classrooms). The CAMP manual, however, stresses the importance of observing the actual CAMP sessions by the consultant in order to give feedback to the CAMP leaders (Pfohl, 1979). Before starting the sessions, the teachers took care of certain routine tasks which often delayed the expected start of the CAMP session. Regular subject areas were also covered each day. Thus, the teachers were under a tight time schedule (e.g. 20-30 minutes a day) in which to administer the CAMP program, and

it is possible that they could have experienced some anxiety when leading the sessions. Another situation which also could have caused anxiety of the teachers was the fact that they shared classroom when leading the CAMP sessions.

The teachers had never before shared classrooms, and they expressed their concern over this situation. This distress or anxiety experienced by the teachers could have effected the children's anxiety levels since the teachers served as role models during CAMP. The consultant, in contrast, had greater freedom than the teachers to organize the DUSO sessions.

While waiting for the teacher's signal to start the sessions, the consultant could relax for a few minutes which secured a relaxed appearance at the onset of the DUSO session. The consultant could, thus, have served as a relaxed role model. Most of the DUSO sessions secured a desired (e.g. constructive discussions about personal worries and concerns) dialogue between the children while certain activities (e.g. role-playing) were very well-liked. Thus, the DUSO program might have provided a relaxing "time-out" (relief from regular, demanding academic tasks) condition and, therefore, allowed reductions of anxiety in the children. In any case, the CAMP leaders had to function under a tighter time schedule than the DUSO leader. Another area of concern involving the teachers was the significant differences at pretest in the treatment by measures condition.

The children who belonged to teacher (1) (with the highest group mean anxiety scores at pretest) showed a significant reduction of scores at posttest and follow-up, relative to the scores at pretest. In contrast, teacher (2)'s homeroom children's scores remained relatively intact at all measurement periods. At follow-up, the children of teacher (1) and (2) had almost identical mean group scores. A possible explanation for the convergence of scores at follow-up could be the "regression to the mean" effect (Cook & Campbell, 1979).

The regression to the mean effect holds that extreme scores (different from the mean) will have a tendency to revert back to normal, or average, scores when several measurements are obtained, and that regression would occur between pretest and posttest (Cook & Campbell, 1979). As the scores for teacher (1) were significantly reduced between pretest and posttest while leveling off between posttest and follow-up (no significant reduction of scores between posttest and follow-up) to become equal to teacher (2)'s scores at follow-up, it is possible that the data analysis showed a "regression to the mean" effect. The regression to the mean effect would then have occurred between pretest and posttest for the CAMP and DUSO children who belonged to teacher (1) in the homeroom. Another plausible explanation to the significant differences at pretest between teacher (1) and teacher (2) and the significant differences for teacher (1) between pretest and

follow-up concerns the teachers' ability to effect children's anxiety outside of the study itself.

Even though teacher (1)'s children started out with the highest levels of anxiety, teacher (1) might have been more able to reduce levels of anxiety, irrespective of the CAMP or DUSO programs' effects, than teacher (2). It could be, for example, that teacher (1) was under greater personal tension (effecting the children's anxiety) at pretest, while teacher (2) might have become more tense when the end of the semester approached. However, this possibility cannot be adequately resolved as the study did not measure anxiety levels of the teachers. Another area which could be related to the unexpected results of the study is the quality of the in-service training which was provided to the teachers by the consultant.

It could be possible that the teachers received inadequate in-service training. Because the consultant had no prior experience with the CAMP program, the consultant might not have been able to instruct the teachers as directed in the CAMP manual. Inadequate in-service training should have affected the CAMP gains negatively. Another possible explanation for the unexpected results of the study concerns regular elementary school teacher's ability to successfully administer the CAMP program.

Although regular classroom teachers are able to teach a wide variety of academic skills, the CAMP program could demand leader skills which go beyond regular teacher's

training. Regular teachers are not trained to deliver stress and anxiety management programs. Therefore, regular classroom teachers may be too unprepared to implement CAMP without having received prior training with relaxation methods. Moreover, the DUSO children might have assumed that they were given a stronger treatment for anxiety than they in reality received.

Research of the "placebo effect" phenomenon indicate that individuals, who believe they are receiving a valid treatment, even though they receive a neutral treatment (e.g. a sugar pill with no pharmacological effects to remedy a disorder), will tend to behave as if they had received a valid treatment (Lazerson, Caldwell, Farden & Orlofsky, 1972). To clarify, if the DUSO children truly believed that DUSO could effectively alleviate anxiety (although only discussions of anxiety, rather than actual relaxation training, were used), their CSQ scores could reflect a placebo effect rather than true gains. It could also be mentioned that the consultant was presented as a graduate student in psychology to the children. Some children might, therefore, have assigned more expertise to the consultant than to the teachers (who had degrees in education, not psychology). Because the consultant lead the DUSO group, the DUSO children could have believed that they were given a more efficient treatment (i.e. a placebo effect) than the children in the CAMP group (since the teachers lead the CAMP group). More, another area of

ambiguity concerns the ability of the CSQ scale to adequately assess the effectiveness of the two programs (CAMP, DUSO) in reducing anxiety.

The CAMP program proclaims to teach generalizable coping skills for reducing anxiety. The CSQ scale is geared to assess anxiety in relation to the school environment: CAMP is designed for overall stress and anxiety, not only school anxiety. Because the CAMP skill gains could be utilized beyond the school setting, it is possible that the CSQ scale fails to assess results in other settings in which CAMP could reduce anxiety. While the CSQ scale, because of restricted content areas, might deflate the true gains of the CAMP children, the reverse could be true for the DUSO children.

Several questions on the CSQ scale (approximately 10 percent) pertain to performance in front of other children (e.g. "read aloud," "recite a poem," "act in a play,"). These questions could possibly be closely related to the DUSO role-playing activities as these were performed in front of other children. All children (except one) had performed several times with apparent enjoyment. Thus, the CSQ scale could inadvertantly have enhanced the true DUSO gains by emphasizing a specific area of anxiety (e.g. activities in front of the class). Although the CAMP sessions also allowed role-playing, this activity was not utilized to the same degree in the CAMP group as in the DUSO group. Another situation which could have affected

the children's CSQ scores concerns the possibility of practice effects.

The CSQ was administered with an eight week interval between pretest and posttest and a five month interval between posttest and follow-up. Because CSQ was given three times, it is possible that some children could have understood the nature of the CSQ questions and answered in terms of their perception of desired responses (e.g. that they had reduced their anxiety). Research has shown that some individuals tend to choose socially desirable test responses rather than true responses (Jackson, 1973; as cited in Anastasi, 1982). One DUSO student, for instance, displayed an anxiety score at pretest which was above the average anxiety score (CAMP and DUSO groups). The student's anxiety score at follow-up was zero (i.e. indicating total absence of anxiety). It could, therefore, be assumed that at least one student's CSQ scores reflected a perceived, desired response style rather than true personal gains. Furthermore, because the CSQ was used to examine the outcome of the study, it should be noted that the CSQ was standardized on a subject sample with different characteristics than the subject sample of the study.

In terms of scientific precision, it could be invalid to interpret the outcome of the study with the CSQ. Since there are discrepancies of geographical location, time period, socio-economic standing, and racial mixture between

the study and standardization subject samples, the meaning of anxiety on the CSQ could differ between the two subject samples. In other words, the CSQ could measure anxiety differently between the study and standardization subject samples. For example, the subjects of the study lived in a small college town (Bowling Green, Kentucky) which is surrounded by a rural area and the CSQ standardization subjects lived in an urban area (Austin, Texas). In addition, both localities are separated by geographical region: Bowling Green is located in the south-east region of the country and Austin is located in the south-west region of the country. More, the CSQ standardization data was obtained two decades ago (1964-1966) and the study was conducted in 1983.

It is possible that contemporary children's anxiety profiles could differ from the children's anxiety profiles at the time of the CSQ standardization proceedings in the mid-1960s. There are indications that the context of children's anxiety has changed since the last decade and that contemporary children's anxiety often resembles adult types of anxiety (e.g. anxiety about the future, divorce, unemployment, nuclear armament and energy) (Rhiner, 1983). Moreover, the study and standardization subject samples show a different socio-economic standing.

The subject sample of the study consisted of approximately 85-90 percent middle to upper middle-class and 10 to 15 percent lower-class students and the

standardization subject sample consisted of 25 percent middle-class and 75 percent lower-class students. Also, the subject and standardization subject samples display a different racial mixture.

There were a racial mixture of approximately 90 percent Whites, five percent Blacks, and five percent of other racial origin (Vietnamese, Egyptian) in the subject sample of the study. The standardization subject sample were composed of 25 percent Whites, 50 percent Mexican-Americans, and 25 percent Blacks. Although several differences exist between the study and standardization subject samples (e.g. geographical location, time period, socio-economic standing, and racial composition), the mean CSQ scores of the School Anxiety (SA), Defensiveness (DF), and Self-Disparagement in Relation to Others (SD) factors of the study (pretest) and standardization subject samples were almost identical.

The CSQ School Anxiety factor displayed mean values of 32.08 (study sample at pretest) and 30.06 (standardization sample). The Defensiveness factor showed mean values of 17.69 (study sample at pretest) and 13.8 (standardization sample). Also, the values of the means for the Self-Disparagement factor were 4.65 (study sample at pretest) and 3.6 (standardization sample). Thus, there were only minor differences of 1.05 (SD), 2.02 (SA), and 3.89 (DF) points between the mean CSQ scores of the study and standardization subject samples. Because the various

mean CSQ scores (SA, DF, and SD) of the two subject samples (study and standardization) were almost identical, it could be assumed that compatibility exists between the study and standardization subject samples. Moreover, the CSQ scores for the Defensiveness factor indicated that there was a significant difference between scores at pretest and follow-up for the CAMP and DUSO children.

Since the CSQ Defensiveness scores at follow-up were higher than at pretest, the children (CAMP and DUSO) had increased their levels of defensiveness at the time of follow-up testing. A possible explanation for the increased levels of defensiveness at follow-up, could be the impact of the approaching end of the Spring semester. Research has shown that children tend to manifest greater levels of anxiety towards the end of semesters (Phillips, 1978). Because defensiveness is a form of anxiety (Ruebush, 1963; Phillips, 1966), the elevated CSQ Defensiveness scores at follow-up could have been a response to the approaching end of the semester. Moreover, the data analysis indicated that there were no significant results for the Self-Disparagement in Relation to Others factor. Since the CSQ results displayed no significant differences for the Self-Disparagement factor between the measurement periods (pretest, posttest, follow-up), it could be assumed that neither CAMP nor DUSO were able to reduce the fourth grade student's levels of self-disparagement. Because CAMP was designed to be

administered during a one-year period, it is possible that the eight-week period of the study failed to allow the children full mastery of the CAMP techniques (e.g. relaxation training, problem-solving, social/behavior skills training). Process evaluation, nevertheless, indicated that CAMP had been implemented as directed in the manual and that the children had learned the CAMP skills. Therefore, additional research is needed which could help to clarify the effectiveness of the program.

Future research with CAMP could address the following areas: (a) use an experiment-comparison-control group design; (b) use measurements of the leader's anxiety in the data analysis; (c) control for children's continued practice (after termination of the CAMP administration); (d) use a broad-based assessment instrument (beyond, but including, the school setting); (e) combine a subjective pencil-and-paper test with objective, physical measures (e.g. skin conductance, heart and breathing rate, blood pressure); (f) use past CAMP leaders (to examine practice effects); and (g) allow individuals with prior experience of relaxation methods to administer the CAMP program. Most important, however, appears to be to examine the outcome of CAMP when it has been administered during a full school year.

CHAPTER V

Summary

A study investigating the effects of Children's Anxiety Management Program (CAMP) upon fourth grade children's levels of school anxiety, defensiveness, and self-disparagement was conducted during Fall, 1983. The setting of the study was an elementary school in Bowling Green, Kentucky. The 48 subjects were chosen from two intact fourth grade classes in the school. The principal and the two classroom teachers of the subjects gave their permission to implement the study during the regular school day.

The study was designed to compare the effects of the Children's Anxiety Management Program (CAMP) with the Developing Understanding of Self and Others (DUSO) program. Therefore, the subject sample was randomly divided into one of two groups: CAMP or DUSO. The children in the CAMP group was administered the CAMP program and the children in the DUSO group was administered the DUSO program.

In short, the CAMP children were taught relaxation training in combination with problem-solving strategies, social-behavioral skill techniques, imagery, and role-playing. They were also asked to practice their learned skills at home and at school. The CAMP children

used student logbooks in which they recorded attainment of the CAMP skills and their fulfillment of the required individual practice at home and school. The student logbooks were used to insure that the CAMP children had completed the CAMP activities as directed in the CAMP manual. In contrast to CAMP, DUSO does not teach strategies to actively cope with distress and anxiety.

The DUSO children were only involved with discussions of anxiety. They discussed personal worries and concerns among themselves and created short dramatized stories which were enacted (i.e. role-playing about the expressed concerns) in front of the DUSO group. In contrast to the CAMP children, no homework or student logbooks were given to the DUSO children.

The two regular classroom teachers of the subject sample volunteered to instruct the CAMP group. The CAMP instructors were experienced school teachers and had taught for over 12 years at the elementary grade level. The CAMP consultant was a graduate student in psychology from Western Kentucky University. The consultant administered the DUSO program and trained the CAMP instructors in the necessary leader skills of CAMP. It was the responsibility of the CAMP instructors to correctly implement the CAMP program. The CAMP and DUSO sessions were administered simultaneously in similar classrooms, across a hall.

CAMP and DUSO were administered during a period of eight weeks. The CAMP instructors participated in five

in-service training sessions which were given at the end of the regular school day. The in-service sessions lasted between 1 to 2 hours. There were four CAMP and DUSO sessions each week (Monday through Thursday) and the average session lasted about 20-30 minutes. The consultant finished the DUSO session as soon as the CAMP session had ended. The CAMP instructors alternated days in which to instruct the CAMP group or record the progress of the CAMP session in an instructor logbook. The instructor logbooks were used to insure that CAMP had been implemented as stated in the CAMP manual.

The progress of the CAMP group was assessed by process and outcome evaluation. Process evaluation (e.g. instructor discussions, instructor and student logbooks) indicated that CAMP had been implemented as directed in the CAMP manual and that the CAMP children had learned the CAMP skills. Therefore, the results of the study are based upon a correctly implemented CAMP program. The Children's School Questionnaire (CSQ) was used to evaluate the outcome of CAMP and DUSO.

The CSQ was administered immediately before and after the implementation of CAMP and DUSO, and at follow-up, five months after termination of the programs (CAMP and DUSO). The data analyses examined the dependent variables of School Anxiety (SA), Defensiveness (DF), and Self-Disparagement in Relation to Others (SD) via a 2 x 2 x 3 repeated measures analysis of variance (ANOVA).

Thus, treatment (CAMP, DUSO) and teacher effects (teacher 1, teacher 2) as well as interactions between treatment and repeated measures and teachers and repeated measures could also be investigated.

The hypotheses of the study that (a) the CAMP group would significantly decrease levels of anxiety and (b) decrease levels of anxiety significantly more than the DUSO group were not supported. The results indicated that the DUSO group significantly reduced levels of school anxiety between pretest and posttest and pretest and follow-up. Teacher 1's homeroom children also significantly reduced school anxiety levels between pretest and posttest and pretest and follow-up.

The results of the Defensiveness factor indicated a significant increase of scores (CSQ) between pretest and follow-up for the CAMP and DUSO groups. There were no significant differences for the Self-Disparagement factor on any of the measures at pretest, posttest, or follow-up.

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